REMARKS

Claims 1-20 and 22 remain in this application. Claims 1, 13-16, 18-19 and 22 have been amended.

Applicant acknowledges the indication in the Office Action of claims 4-5, 7, 9, 15-18 and 21-22 as being objected to, and it is understood that these claims contain allowable subject matter. Independent claim 19 has been amended to include the subject matter of claim 21, as is now believed to be allowable.

Claim 1 was objected to with regard to the phrase "the temperature including a first maximum target temperature." Claim 1 has been amended to recite "the temperature range including a first maximum target temperature," such that it is believed that the terminology of the objected to phrase has now been clarified. Accordingly, it is requested that the objection to claim 1 be withdrawn.

Claims 1, 3, 6, 8, 10-12 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aslam et al. (US 6,016,410) in view of McMindes et al. (US 6,298,216); and claims 1-3, 6, 8, 10-12 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aslam et al. (US 6,016,410) in view of Elter (US 4,551,007). The Examiner cited Aslam et al. as disclosing "interrupting said heating prior to commencement of a fusing operation." Aslam et al. teaches at column 4, line 64 to column 5, line 8:

> . . . when a print job is started, the fuser roller is heated to a temperature above the idle temperature; and wherein a source of pressurized air is actuated to create a thermal gradient in the fuser roller. This establishes a thermal gradient between the fuser roller core 16 and the outer surface of the elastomer blanket 18 before the first receiver member in a reproduction job run reaches the fuser nip. At the actuation of the copy start button of the reproduction apparatus, the skives 30 are turned on to supply the desired air flow and establish the thermal gradient in the fuser roller. The time to first copy may be delayed slightly to enable this temperature gradient to be established.

Further, it is noted that Aslam et al. states at column 5, lines 16-23:

> Response X shows the temperature profile of the fuser roller 12, with the fuser roller temperature setpoint being at approximately 340°F, during the idle

period, as compared to 320°F during the reproduction job run. At the actuation of the reproduction apparatus job run start, the fuser temperature operating setpoint is raised to 350°F so that the internal and external heat sources for the fuser roller 12 start supplying full heat to the fuser roller.

The invention recited in amended claim 1 comprises a heated roll including a heater, the heated roll being heated to a preheated temperature in excess of a maximum target temperature, and interrupting power to the heater to interrupt the heating prior to the commencement of a fusing operation, commencing the fusing operation and subsequently initiating reheating of the heated roll only upon the temperature of the heated roll dropping below the first maximum target temperature.

As noted above, the process disclosed by Aslam et al. supplies full heat to the fuser roll at the apparatus job run start and a thermal gradient is established by turning on skives to establish a desire air flow. Accordingly, Aslam et al. does not disclose, teach or suggest interrupting power to a heater to interrupt the heating prior to the commencement of a fusing operation.

McMindes et al. and Elter were each cited for teaching initiating reheating of the heated roll during a fusing operation upon a temperature of the heated roll dropping below a maximum target temperature to maintain a stable fusing temperature. Both of these references disclose maintaining a fuser at a preset temperature, but do not disclose providing a preheat temperature in excess of a maximum target temperature and controlling power to a heater within a heated roll such that the power is interrupted at the commencement of a fusing operation and until the temperature drops below a maximum target temperature. Thus, it is apparent that none of the cited art, either singly or taken in combination, discloses the particular steps of discontinuing power to a heater upon commencement of a fusing operation, when the fuser is at an elevated preheat temperature, and subsequently initiating reheating of the heated roll only upon the temperature of the heated roll dropping below a first maximum target temperature. Further, Aslam et al. teaches increasing the fuser temperature operating setpoint to a higher temperature (i.e., 350°F) than an idle period setpoint temperature (i.e., 340°F) so that the heat sources for the fuser roller start supplying full heat to the fuser roller upon actuation of a job run start, and thus teaches away from the step of interrupting power at

the commencement of a fusing operation.

Claims 13-14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Aslam et al. (US 6,016,410) in view of Cho (US Pub. No. 2004/0042810). With regard to Cho, the Examiner noted:

> "Cho discloses a temperature control method for a fuser 100 having a temperature range for proper fusing and a maximum target temperature within the range, said method steps comprising steps of: providing a heated roll 110, a heater 170 and a temperature sensor 162, determining completion of a first print job processed in the fuser (as disclosed in par. [0048]), sensing a temperature of the heated roll during a standby period between the completion of the first print job and commencement of a second print job (as disclosed in par. [0047]), and activating the heater during the standby period to elevate the temperature of the heated roll to a standby temperature within the temperature range (as disclosed in pars. [0047]-[0052])."

The Examiner further noted that Cho does not disclose that the standby temperature is greater than the maximum target temperature, and cited Aslam et al. as evidence that one of ordinary skill in the art would recognize "that the standby temperature should be made greater than the maximum target temperature."

It is noted that claim 13 has been amended and now recites "maintaining the temperature of the heated roll at a low standby temperature during a standby period between the completion of the first print job and commencement of a second print job," and "activating the heater during the standby period to elevate the temperature of the heated roll to an elevated standby temperature." There is no disclosure, teaching or suggestion in either Cho or Aslam et al., taken singly or in combination, to maintain a heated roll at a low standby temperature during a standby period between two print jobs and also to elevate the temperature to an elevated temperature during the standby period, as described at par. [0034] and Figs. 3A and 3B of the present application.

Claims 14-16 and 18 have been amended consistent with the amendments to claim 13.

In view of the foregoing remarks, it is respectfully submitted that claims 1-20 and 22 define patentably over the prior art.

If the present amendment raises any questions or the Examiner believes that an interview would facilitate prosecution of the present application, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

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